

LRMI Balloon Debate

Short link: <http://bit.ly/lrmiBalloon>

“ A balloon debate is a debate in which a number of speakers attempt to win the approval of an audience. The audience is invited to imagine that the speakers are flying in a hot-air balloon which is sinking and that someone must be thrown out if everyone is not to die. Each speaker has to make the case why they should not be thrown out of the balloon to save the remainder.”

https://en.wikipedia.org/wiki/Balloon_debate

Our “balloon” is a metaphorical one, it stands for the volunteer effort that maintains LRMI, and instead of people it is trying to carry out work that will help people describe learning resources in order to improve resource discovery and selection. While it is by no means sinking, like a real balloon LRMI can only sustain a certain (work-)load, and so we need to be selective in the work which is taken on. This exercise is intended to provide LRMI with ideas about which work to prioritize, while providing those who take part with information about the future directions that are open to LRMI.

Debate format

The debate will proceed through three rounds, the first round will be about choosing candidate ideas for future work, the second will eliminate those which are least feasible, and the third will select the highest priority. We will be working from a Google Doc which describes the ideas.

Preparation: setting up the ideas

Read the suggested ideas. You may add new ideas if you wish (you will be asked to provide a short description of the idea). There will be a chance to ask questions where anything is not clear.

Round one: choosing candidate ideas

Discuss them with neighbours, focussing on which you think are the strongest ideas in terms of their potential impact. Do not worry about how easy or difficult the ideas are, that comes next. You will be asked to vote individually for the 3 ideas that you think would have the greatest impact. The six top ideas in this poll will go forward to the next round.

Round two: eliminating the infeasible ideas

Discuss the remaining ideas focussing on how easy you think they will be to carry through to a successful conclusion. Ask questions if you need. You will be asked to vote individually for the three ideas that you think would be the hardest to achieve. Two ideas which are least feasible will be eliminated.

Round three: selecting the best idea

We will form a group for each of the remaining ideas and each group will be asked to make a short case for why their idea is the best. After these cases have been made participants will be asked to rank the ideas in order. These rankings will be used to select the best idea.

The Ideas

1. Structured, controlled vocabularies for LRMI properties

Several key LRMI properties take text for their expected value type. The use of free text for properties such as `learningResourceType` makes it difficult to compare data from different providers. Where there are suggested values mentioned in the LRMI spec for these, the LRMI Task Group is already working to provide definitions of terms in RDF (as SKOS Concepts). This suggestion is a continuation of this work, to try as far as possible to provide controlled vocabularies for relevant LRMI properties.

2. Drop the Alignment Object for the most common alignment types

The mechanism of indicating how a resource relates to an educational framework involves a level of indirection which is both arcane and potentially powerful, however it's full power is not fully developed. The suggestion here is that the indirection be removed by creating properties for those alignment types which are clearly important. So, for example, it is often important to state the educational level of a resource (e.g. in terms of Grade Level). Currently this would be an `educationalAlignment` with an `AlignmentObject` having `alignmentType` of `educationalLevel`. The indirection of the `AlignmentObject` could be removed if there were a property of a learning resource called `educationalLevel` referencing directly a point in a grade level framework.

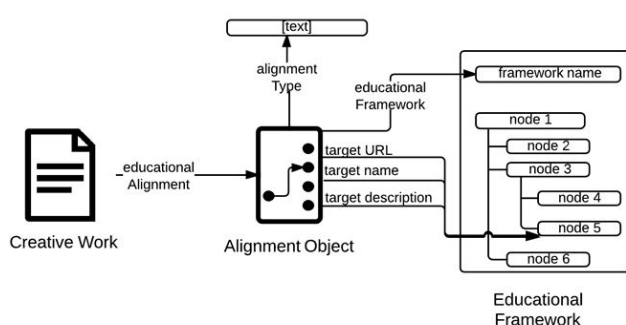


Figure 1a: representing an educational alignment with an alignment object. The alignment type property of the alignment object can set to specify the nature of the relationship, e.g. that this represents the educational level of the resource.

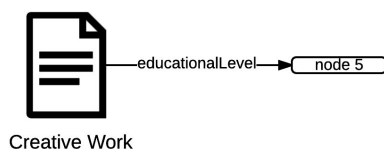


Figure 1b: a possible way of representing an alignment such as educational level of the resource more simply.

Note: the value provided could be text or a URI; representing the relationship of the node to an educational framework is not yet solved in Schema.org.

3. Develop the Alignment Object to be more expressive

The mechanism of indicating how a resource relates to an educational framework involves a level of indirection which is both arcane and potentially powerful, however it's full power is not fully developed. The suggestion here is that properties be added to the AlignmentObject to allow additional information about the alignment between a resource and a point in an educational framework. This additional information may include factors such as: who asserts that the alignment holds, what evidence they have for this alignment, how good is the alignment.

4. Recommendations for referring to educational frameworks

From the point of view of facilitating resource discovery the relationship between a resource and an educational framework is key. Showing how a resource relates to a framework which is understood by educators and learners allows them to find resource suitable for their needs. This may be manifest in discovery interfaces as faceted search or browse categories. One problem is identifying the relevant frameworks for different types of educational alignment in different educational contexts (e.g. what is the Scottish equivalent of K-12 for educational level?). Another problem is that variation in how these frameworks are expressed in LRMI metadata makes creation of such services more difficult than it need be (what is the framework name for K-12? What URIs are best to use?). We could help by creating an inventory of frequently used educational frameworks and recommendations on how to refer to them.

5. Declare a "Learning Resource" type

Currently, a Learning Resource is not formally declared in the schema.org schema as a subtype of CreativeWork. Instead, it is inferred that a Learning Resource is a kind of CreativeWork since the LRMI properties were included as part of the CreativeWork type. The lack of an explicit LearningResource subtype to CreativeWork makes it difficult for some doing markup or implementing systems using schema.org to recognize that schema.org in fact supports description of learning resources. They see EducationEvent as a subtype of Event, but no LearningResource as a subtype of CreativeWork.

6. Define a minimal subset of schema.org for describing learning materials

The schema.org schema is quite large and can be intimidating for some wanting to define minimally viable learning resource descriptions--e.g., where to begin, what properties are most important, how should they be used. Publishing a suggested profile of schema.org that defines a minimally viable learning resource description while leaving open the addition of other properties needed with a particular use, might assist implementers needing a means to jumpstart development of their own profile based in schema.org.

7. Create support materials explaining LRMI properties

Recently, examples of how to use the AlignmentObject as well as the LRMI properties of CreativeWork have been added as 'footers' to the relevant schema pages at schema.org. While an excellent beginning, these additions are not enough. Other types of support materials for describing learning resources using the LRMI properties and classes need to be defined, developed, and published. Such materials might include a one-stop "primer" that combines narrative with examples and covers the inevitable points in usage where subjective decisions must be made

where there are alternative legitimate paths forward.

8. Collate information about existing LRMI implementations

Specifications always need to be interpreted in order to be used in specific contexts, and however much normative and informative material is provided, we cannot hope to cover all contexts. One way that people implementing a specification can make choices that do not lead to unnecessary divergence is by referring to other implementations from similar contexts. LRMI could facilitate this by collating information about where these implementations can be found. This may also be useful in monitoring the uptake of the specification, identifying problems commonly encountered and providing examples of good practice.

9. Create an editor for LRMI metadata

Several tools exist that can create LRMI metadata within the scope of a single project or service's needs. What is suggested here is that LRMI create, assist or promote the creation of an editor that can serve as a reference implementation: independent of the choices that would need to be made for any use in practice but flexible enough to be tailored practical use and, importantly, illustrating good practice in the implementation of LRMI.